

LEAD MINES—ILLINOIS AND MISSOURI.

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES,

TRANSMITTING THE INFORMATION REQUIRED BY A

RESOLUTION OF THE HOUSE OF REPRESENTATIVES, OF 8th MAY LAST,

IN RELATION TO

THE LEAD MINES

BELONGING TO THE UNITED STATES,

IN THE

STATES OF ILLINOIS AND MISSOURI.

DECEMBER 8, 1826.

Read, and laid upon the table.

WASHINGTON :

PRINTED BY GALES & SEATON.

1826.

To the House of Representatives of the United States :

WASHINGTON, 8th December, 1826.

I transmit to the House of Representatives a report from the Secretary of War, with sundry documents, containing the information requested by a resolution of the House, of the 8th of May last, relating to the Lead Mines belonging to the United States, in Illinois and Missouri.

JOHN QUINCY ADAMS.

In the House of Representatives of the United States:

Witness my hand and seal this 1st day of January, 1872.

I transmit to the House of Representatives a report from the Secretary of the War, with certain documents, containing the information requested by a resolution of the House of the 21st of May last, relating to the land claims belonging to the United States in Illinois and Ohio.

JOHN QUINCY ADAMS.

DEPARTMENT OF WAR,

December 7th, 1826.

The Secretary of War, to whom was referred the resolution of the 8th of May last, requesting the President of the United States to cause to be obtained, and lay the same before Congress at the next session, a statement shewing the number of persons engaged in working the Lead Mines belonging to the United States, in Illinois and Missouri; the quantity of mineral raised at them; the quantity of land that has been ascertained, by discovery, to be mineral land; and, as nearly as may be, the quantity of lead made at those Mines since the first day of July last; and, also, a statement showing the number of persons engaged in working such Mines, in said States, as belong to private individuals, or companies; and, as nearly as may be, the quantity of mineral raised, and lead made, at those Mines, since the period aforesaid," has the honor to submit, herewith, a report of the Colonel of Ordnance, made in compliance with the resolution.

I have the honor to be,

Your obedient servant,

JAMES BARBOUR.

The PRESIDENT of the United States.

ORDNANCE DEPARTMENT,

Washington, December 4, 1826.

The Hon. JAMES BARBOUR,

Secretary of War.

SIR : In compliance with your instructions, to collect and transmit the information required by a resolution of the House of Representatives, of the 8th of May last, I have the honor to state, that the requisite instructions were given to the Superintendent of the Lead Mines, to collect and forward the information required. And I have now the honor to submit his report, which contains all the information upon the subject which it has been in his power to collect.

It will be observed, that the report of the Superintendent is not limited to the matters mentioned in the resolution, but embraces others, which, although not expressly required by the terms of the resolution, are considered material to the subject of it. It is considered proper, therefore, to present the report entire, as, in this state, it gives a fuller account of the present condition, and future prospects, of the public Lead Mines.

The Superintendent renews a proposition, heretofore submitted, for opening a road from Potosi to the Mississippi river, and adds another for improving the navigation of the "Upper Mississippi." Both of these propositions are conceived to be of sufficient importance to merit the consideration of the proper authorities. It is believed that the expense of carrying them into effect, would, in a short time, be reimbursed by the increased product of the Lead Mines. The improvement recommended in the navigation of the Mississippi, it is conceived, would be important to the public service in other respects than in promoting the interests of the Lead Mines, as it would, doubtless, greatly lessen the difficulties of communicating with the remote military posts, situated on the head waters of that river.

It is presumed that legislative sanction is necessary to measures like these now proposed; they are, therefore, respectfully submitted in connexion with the report which is made in answer to the resolution.

I have the honor to be, sir,

Your most obedient,

GEO. BOMFORD, *Brevt. Col.*

On Ordnance service.

UNITED STATES' LEAD MINE OFFICE,

St. Louis, Miss. September 30, 1826.

TO COL. GEORGE BOMFORD,

On Ordnance Service, Washington, D. C.

SIR : In compliance with your instructions, I proceed to report the number of persons engaged in working the Lead Mines, the property of the United States, in Illinois and Missouri, the quantity of mineral raised at them, and the lead made since the 1st day of July, 1825, the number of persons engaged in working *private* mines, the quantity of mineral raised at *them*, and the quantity of lead made since the 1st day of July, 1825, and the quantity of land that has been by discovery ascertained to be mineral land; which information is required by a resolution introduced into the House of Representatives, by the Hon. D. P. Cook, at the last session of Congress, a copy of which was received with your instructions.

It is necessary to premise, that a portion of the information required by the resolution could only be obtained in an incomplete and somewhat unsatisfactory manner, owing to causes beyond my control, and which will be explained in this report. So far as was practicable, I have given facts; when compelled to resort to other sources, I have used due caution in adopting the estimates and information obtained.

First—The number of persons engaged in working the Public Lead Mines.

I am enabled to give with accuracy the number of persons at the Public Mines in Illinois only, or rather at the mines near the North boundary of that State, and which are supposed to be within its limits, commonly known as the Fever River Mines, viz. On the 1st day of July, 1825, there were at those mines about one hundred men; on the 31st of December, 1825, one hundred and fifty-one men; on the 31st of March, 1826, one hundred and ninety-four; on the 30th of June, 1826, four hundred and six; and on the 31st of August, 1826, (the date of the last report,) there were four hundred and fifty-three men. You will observe the increase has been gradual, and the number is still augmenting. In *Missouri*, the number of miners, teamsters, and laborers of every description (including slaves) at the public and *private* mines, may be *estimated* at about two thousand. They do not however work constantly at mining, many are farmers, &c. who, with their slaves, devote to mining such time only as they can spare from their other pursuits. I am of the opinion, that not more than the quantum of labor to be derived from the steady application of one thousand men, is applied to the mining and other incidental business connected with it in Missouri. The miners, working for themselves generally, labor when they please, and as they think

proper. The proprietors or lessees of the mines, have no control over the miners, other than that of requiring them to deliver the mineral they obtain; they are constantly changing from one mine to another, and it is impossible, under such a state of things, to ascertain the amount of labour bestowed. The *estimate* I have given is from observation, and information derived from experienced persons.

Second—The quantity of mineral raised, and lead made, at the Public Mines.

At the Fever River Mines, (Illinois,) from the 1st of July, 1825, to the 31st of August, 1826, there were 2,416,356 pounds of mineral obtained, and 1,042,288 pounds of lead made, leaving on hand at the latter date, mineral and *ashes*, (fine mineral partly desutphuated) sufficient to make 1,380,000 pounds of lead, including about 1,200,000 pounds of mineral raised at the mines, but not taken to the furnaces. In Missouri from 1st July, 1825, to the 30th of September, 1826, there were obtained from the Public Mines under lease, 2,641,231 pounds of mineral, and 1,738,427 pounds of lead were made, leaving mineral and *ashes* on hand at the latter date, sufficient to make 170,000 pounds of lead.

Third—The number of persons engaged in working the Private Lead Mines in Illinois and Missouri.

As respects *Missouri* I have already stated that the miners work indiscriminately, at Public and Private Mines. In Illinois there are no Private Mines wrought.

Fourth—The quantity of lead made at *Private* Mines.

I am compelled to *estimate*, when answering this. Persons are naturally unwilling to disclose the amount of their business. From the best sources within my reach, I am of the opinion that about 8,000,000 of pounds of lead were made in Missouri from the 1st day of July, 1825, to the 30th of September, 1826, from mines, other than those leased from the United States. At least one fourth of that amount was however made from mineral surreptitiously obtained from Public Mineral Lands, principally in small quantities at a time, leaving about 6,000,000 of lead, as the product of the mines, owned or claimed by individuals in Missouri.

Fifth—The quantity of land which has been ascertained, by discovery, to be Mineral Land.

I am somewhat at a loss to answer this. If it is meant to inquire the number of acres from which lead ore, *in quantity*, has been obtained in Missouri, it may be estimated at 3,000 acres. This amount, it may be observed, is very small, compared with the reservations from sale, on account of mineral appearances; but as the land is surveyed and subdivided into tracts, the smallest of which is eighty acres, when one acre is found to be mineral land, it is necessary to reserve the whole tract, as the acre of mineral land may produce an immense quantity of mineral in a very short time. The mine Shibboleth has since its discovery in 1811, produced at least \$500,000 worth of lead. This mine covers less than thirty acres. One Public Mine leased in November, 1824, has, from that period,

until the 30th September, 1826, produced 680,000 pounds of lead, exclusive of about 180,000 pounds taken from it previous to the lease. This mine does not cover more than ten acres. Another lease of a mineral tract, of less than eighty acres, has produced about 600,000 pounds of lead, principally from one vein, covering but a small superficial extent. But if the information required by the Resolution is the amount of land, which, from geological and mineralogical features, is considered mineral land—land possessing such indices as to leave no reasonable doubt of its containing lead mineral under the surface—the amount may be stated at present at 400,000 acres. This amount includes all which has been reserved from sale, by law; as well as all the land *claimed* and held under French and Spanish grants, pre-emption and settlement rights, and all other *incomplete* titles, which happened to be within the bounds of the reservations.

I have thus replied to the Resolution, in the best manner I have had it in my power to do, and I will take the liberty to subjoin such other remarks as may probably be illustrative or interesting.

From the 1st day of July, 1825, to the 30th of September, 1826, there has accrued as rent of the Public Mines, 278,071 pounds of lead, and there is mineral now on hand sufficient to yield 155,000 pounds more, making a total of 433,071 pounds, which at the present price would amount to \$21,653 55. After deducting the expenses of collection, transportation, &c. &c. (about \$3000) the clear revenue would be \$17,653 55, for a little more than one year; and this has accrued under unfavorable circumstances, for in Missouri, owing to a very wet season, mining has been prosecuted with but little success, and, as before stated, much has been lost to the United States from unauthorized mining. At Fever River the operations were not fairly commenced until June. Previous to that time, but two furnaces were in operation, subsequently *five* have been in constant activity.—Although the amount of rent above stated is of little comparative importance to the Government, yet it is satisfactory to know, that the business is in a flourishing condition, and bids fair to increase annually. The number of miners at Fever River is increasing rapidly. Such are the inducements to individual enterprise and industry at those mines, that numbers of the most respectable inhabitants of the “Upper Mississippi” are resorting to them, as a source of reward for labor, not attainable elsewhere. The market those mines afford for the agricultural productions of the upper settlements is already considerable, and is increasing, as the price of *labor* at the mines precludes competition with the settlements below, where it is cheap, and the cost of transportation trifling. Believing, as I do, that the main object of the Government is “a full developement of the mineral resources of the country, previous to a sale of the lands to individuals,” I again take the liberty to recommend, to favourable notice, the plan of making a road from Potosi, (the centre of the principal mines at present wrought in Missouri,) to the Mississippi River, which I had the honor to suggest in my report last winter. I am induced to repeat the recommendation from a thorough conviction of the beneficial

tendency of the road, as respects the value of the public mineral lands, particularly should they be brought into market. I would, for the same reason, also respectfully urge the consideration of what I conceive to be a still more important measure. I allude to clearing out a boat channel through the rapids, in the "Upper Mississippi,"—the first near the mouth of the river Des Moines; the other, just above Fort Armstrong or Rock Island. From information which may be relied on, I believe a boat channel affording three and a half feet water at the lowest stages of the river, may be cleared out for a sum not exceeding \$30,000. This sum will be about the amount of two years rent of the Fever River Mines, even should no material increase take place in their product. The object is one of great importance in many points of view, independent of facilitating the intercourse with, and consequent developement of, the lead mines. The impediments consists principally in loose rocks in the bed of the river. In a communication from one of the most intelligent residents at the Upper Mines, on this subject, he states, that he has been detained, in low water, ten days at each of the Rapids above referred to, by obstacles, which he is of opinion, from particular observation, could be removed for \$20,000. These Rapids are the only serious impediments in the navigation of the "Upper Mississippi," as far up as the Falls of St. Anthony, more than eight hundred miles above St. Louis. Steamboats ascend that distance in the *spring* of the year, under present circumstances; but were the improvements suggested, to be made in the Rapids, it is believed the intercourse would be continued for six months in the year.

The extent of the mineral region of the "Upper Mississippi" is immense. That portion of it now wrought for lead ore is trifling compared with the whole, and yet it has yielded 86,000 dollars worth of lead during the present year. From Apple river (and from below it, in fact) to the Ouiskonsin, a distance of more than one hundred miles, the same geological features present themselves, and there is nothing but labor required to develop the immense value of the country. On the 1st of June last, from the returns of mineral obtained at the Fever river mines during the preceding year, the *average* amount to each miner was found to be \$457 for his year's labor. Subsequent returns are equally large. This state of facts leaves but little doubt that additional labor will soon be applied, when it will be so well rewarded.

With respect to the trespasses on the mineral and timber of the public lands in the mine district of Missouri, I am still of the opinion that the plan of leasing larger quantities than three hundred and twenty acres to one person or company, which I proposed to the Department last winter, will have a beneficial tendency. It is the interest of the lessee to prevent all unauthorized proceedings on the land he has leased, be the amount great or small. There are, frequently, ten or fifteen places in a township where lead ore in small quantities is obtained, neither of which are sufficient to induce a person to lease it, as, under the present regulations, he can have but one lease of three hundred and twenty acres, (to be taken in one place) even if his ability to work

the mines found on five times that quantity be known ; consequently, all are desirous of leasing the productive mines only, whilst those of less importance are neglected. These places become the resort of trespassers ; and, although the amount of mineral obtained by them at any one of such places may be small, the aggregate is very large. Not only so, but the pretence of having obtained the mineral from public land, *not* leased, is held forth, when, in fact, it is frequently obtained from that which is leased, and also from private property, to the serious injury of the owners. Unfortunately, there are persons engaged in smelting lead ore, who are so regardless of all moral restraint or law, as to make it a practice to purchase ore, at an advanced price, (equivalent to the rent required by the United States) no matter how obtained. This is a serious evil to the whole of the owners of mines, public and private ; and, I know of no better plan to suppress it than to put all the land, at present wrought for ore, under lease. When the quantity obtained from *five* or *six* of the smaller mines is no greater than that obtained from *one* of the most productive, I would lease the whole of the former to one person, and thereby place the lessees more upon an equality. The only objection to this plan which suggests itself to me is, monopoly, and that is already guarded against by upwards of sixty leases which are now granted, and which are so located as to destroy the connection of any very large tracts that it would be requisite they should have.

As respects the reservations from sale, it is obviously nothing more than common justice, to place all the residents of the mine districts on an equality either by reserving the whole of the mineral lands from sale, or none of it. So long as a *portion only* of the mineral land is reserved, it holds out a powerful inducement to the adroit and crafty speculator to purchase the remainder, whilst those who are more scrupulous of taking the advantage of the want of information on the part of the Government, now participate in the great profits which they frequently see others obtain by unworthy means. I have, therefore, not hesitated to make reservations of mineral land, so far as my information would justify. The land is, generally, poor, rocky, broken, and difficult of access ; and it is undeniable, that, were it not for the lead mines, those small tracts of good land, which are interspersed throughout the mine districts would not sell for scarcely any thing. It is very probable that some small tracts, apparently fit for cultivation only, may be reserved as containing lead mines ; but such places will be required for the smelting establishments on the adjoining lead mines, whether they be leased or sold ; and, as the measures now taking are of a general and not of a partial character, it is presumed that the sale of a few small and detached tracts of cultivatable land, in so large a district as that of the mines, can be of but little moment, whether it takes place now or a few years hence. Should a contrary opinion, however, prevail, I can re-examine the country, and release from reservation the tracts alluded to, should any such be found.

In my former report, I adverted to the wasteful manner in which the lead ore was smelted. Should it meet your approbation, I would

introduce, by way of experiment, the improved modern "Reverberatory Furnace;" and, as nothing is more difficult than to convince the generality of workmen, that any improvement can be made in the process of a business they have grown grey in following, it will be requisite, in order to have it introduced, to build the furnace and put it in operation at the public expense. It is the opinion of some of the most experienced smelters, that a very material saving would be made by the adoption of this description of furnace in lieu of the one at present in use here. I am convinced of the fact myself, and that the cost of the experiment would soon be repaid by the increase of the product, and, consequently, of the rent of the mines, which is, it appears to me, one of the legitimate objects of the Government in regard to its lead mines. I, therefore, trust the proposition will meet with a favorable consideration. The improvements in the metallurgical department of the French "School of Mines," has amply repaid the expenses attending them. We have authentic information on this subject: In one instance, at the lead mines of "Pescy," the increase of lead from the ore was *forty six per cent.* and which was effected by an *improvement* upon a plan of smelting which had existed for ages. The mine district of Missouri affords a clay, of superior quality, for making fine brick, very suitable for the new furnace, should it be adopted. Another advantage in this furnace is, that it requires much less fuel than the old, which is a consideration of importance in this country, where it is so scarce.

With respect to the profits arising to the owners of the private mines, which, it would appear to be, in part, the object of the resolution to ascertain, it is considered that the only difference between the owners and lessees of mines is, the amount of the rent required by the United States. Private mines are frequently leased upon the same terms as those of the public. They are worked in the same manner also.

I remain, sir, very respectfully, your most obedient.

M. THOMAS,

Lieut. U. S. Army, Superintending U. S. Lead Mines.

